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- 3. The composite field effect transistor of claim 2, wherein the metal-oxide-semiconductor field effect transistor comprises an enhancement mode metal-oxide-semiconductor field effect transistor.
- **4.** The composite field effect transistor of claim **3**, wherein 5 the enhancement mode metal-oxide-semiconductor field effect transistor comprises an n-channel enhancement mode metal-oxide-semiconductor field effect transistor.
- **5**. The composite field effect transistor of claim **1**, wherein the metal-oxide-semiconductor field effect transistor comprises an enhancement mode metal-oxide-semiconductor field effect transistor.
- 6. The composite field effect transistor of claim 1, wherein the gate of the metal-oxide-semiconductor field effect transistor and the cathode of the zener diode are coupled to an 15 input impedance.
- 7. The composite field effect transistor of claim 6, wherein the input impedance comprises a capacitive element.
- **8.** The composite field effect transistor of claim **6**, wherein the input impedance comprises a resistive element.
- 9. The composite field effect transistor of claim 6, wherein the input impedance comprises:
  - a capacitive element; and
  - a resistive element coupled in parallel with the capacitive element.
- 10. The composite field effect transistor of claim 1, wherein the gate of the metal-oxide-semiconductor field effect transistor is further coupled to a drive signal.
  - 11. A composite field effect transistor comprising: a zener diode;
  - a depletion mode junction field effect transistor having a gate coupled to an anode of the zener diode;
  - a metal-oxide-semiconductor field effect transistor having a drain coupled to a source of the depletion mode junction field effect transistor and having a gate 35 coupled to a cathode of the zener diode and a drive signal.
- 12. The composite field effect transistor of claim 11, wherein the metal-oxide-semiconductor field effect transistor comprises an enhancement mode metal-oxide-semicon-40 ductor field effect transistor.
- 13. The composite field effect transistor of claim 12, wherein the enhancement mode metal-oxide-semiconductor field effect transistor comprises an n-channel enhancement mode metal-oxide-semiconductor field effect transistor.
- 14. The composite field effect transistor of claim 13, wherein the gate of the metal-oxide-semiconductor field effect transistor and the cathode of the zener diode is coupled to an input impedance.

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- 15. The composite field effect transistor of claim 14, wherein the input impedance comprises:
  - a capacitive element; and
  - a resistive element coupled in parallel with the capacitive element.
- **16**. The composite field effect transistor of claim **14**, wherein a drain of the junction field effect transistor is coupled to a load impedance.
- 17. A composite field effect transistor comprising: a zener diode;
- a depletion mode junction field effect transistor, wherein a drain of the depletion mode junction field effect transistor is coupled to a drain of the composite field effect transistor and wherein a gate of the depletion mode junction field effect transistor is coupled to an anode of the zener diode; and
- an enhancement mode metal-oxide-semiconductor field effect transistor, wherein a drain of the enhancement mode metal-oxide-semiconductor field effect transistor is coupled to a source of the depletion mode junction field effect transistor, wherein a gate of the enhancement mode metal-oxide-semiconductor field effect transistor is coupled to a cathode of the zener diode and a gate of the composite field effect transistor, and wherein a source of the enhancement mode metal-oxide-semiconductor field effect transistor is coupled to a source of the composite field effect transistor.
- 18. The composite field effect transistor of claim 17, wherein the zener diode causes the enhancement mode metal-oxide-semiconductor field effect transistor to become fully enhanced before the gate of the depletion mode junction field effect transistor is clamped by a gate-to-source potential of the depletion mode junction field effect transistor, as the source of the depletion mode junction field effect transistor is pulled down.
- 19. The composite field effect transistor of claim 17, wherein the zener diode provides a bi-directional impedance path to charge and discharge a parasitic capacitance of the depletion mode junction field effect transistor.
- 20. The composite field effect transistor of claim 17, wherein the zener diode clamps a potential at the gate of the enhancement mode metal-oxide-semiconductor field effect transistor.

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